

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** NOBUKADO MATSUTSUKA

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Appeal No. 2001-1124  
Application 08/885,468

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ON BRIEF

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Before JERRY SMITH, FLEMING, and RUGGIERO, ***Administrative Patent Judges***.

FLEMING, ***Administrative Patent Judge***.

***DECISION ON APPEAL***

This is a decision on appeal from the final rejection of claims 10 and 11, all the claims pending in the instant application. Claims 1 through 9 have been canceled.

The invention relates to an electronic piano. In particular, the invention is directed to an electronic piano

suitable as a welfare musical instrument for physically handicapped persons. See page 1 of Appellant's specification.

Figure 1 is a plan view of an electronic piano according to an embodiment of the present invention. See page 4 of Appellant's specification. As shown in figure 1, a keyboard 1 is divided into plural zones 2, 3, 4. For each zone, one tone is assigned. The zone 2 has four keys 2a, 2b, 2c and 2d. Zone 2 is allocated the tone "do". See page 5 of Appellant's specification.

In each of the zones 2, 3, 4, the keys located at end portions do not generate any tone. This is for preventing the generation of a tone of another zone adjacent to one zone simultaneous with the generation of a tone of the one zone when a key in another zone is struck together with the key of the one zone. For example, the zone 2 comprises four keys 2a, 2b, 2c and 2d. Keys 2a and 2d do not generate a tone, while only the two central keys 2b and 2c generate the tone of "do". See page 5 of Appellant's specification.

The only independent claim, 10, present in the application is reproduced as follows:

10. A method of varying the tonal arrangement of the keyboard of an electric piano comprising the steps of:  
dividing the keyboard into a plurality of divided zones

containing two or more adjacent keys per zone;  
allocating a tone to each of the zones successively to form a  
music scale by the zones; and preventing one or both keys in the  
boundary between adjacent zones from generating a tone.

### **References**

The Examiner has not relied on any references for the  
rejection.

### **Rejection at Issue**

Claims 10 and 11 are rejected under 35 U.S.C. § 112, first  
paragraph, as containing subject matter which was not described  
in the specification in such a way as to enable one skilled in  
the art to which it pertains to make and/or use the invention.

Rather than repeat the arguments of Appellant or the  
Examiner, we make reference to the briefs<sup>1</sup> and the answer<sup>2</sup> for  
the respective details thereof.

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<sup>1</sup> Appellant filed an appeal brief on September 1, 2000.  
Appellant filed a reply brief on November 20, 2000. The Examiner  
mailed an office communication on November 29, 2000, stating that  
the reply brief filed on November 20, 2000, has been entered and  
considered.

<sup>2</sup> The Examiner mailed an Examiner's answer on September 29,  
2000. In response to, an order Remanding to Examiner mailed  
August 15, 2002, the Examiner mailed a corrected Examiner's  
answer on August 27, 2002. We will refer to this corrected  
Examiner's answer as simply the answer.

### OPINION

With full consideration have been given to the subject matter on appeal, the Examiner's rejections and arguments of Appellant and Examiner, for the reasons stated **infra**, we reverse the Examiner's rejection of claims 10 and 11 under 35 U.S.C. § 112, first paragraph.

As noted by our reviewing court in **Enzo v. Calgene**, 188 F.3d 1362, 1371, 52 USPQ2d 1129, 1135 "[t]he statutory basis for the enablement requirement is found in Section 112, Para. 1, which provides in relevant part that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . .

35 U.S.C. § 112, Para. 1 (1994)." "To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation'." **Genentech, Inc. v. Novo Nordisk, A/S** 108 F.3d 1361, 1365, 42 USPQ2d 1001, 1004 (Fed. Cir. 1997) (quoting **In re Wright**, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)). Whether claims are sufficiently enabled by a

disclosure in a specification is determined as of the date that the patent application was first filed, **see Hybritech, Inc. v. Monoclonal Antibodies, Inc.**, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986). Our reviewing court has held that a patent specification complies with the statute even if a "reasonable" amount of routine experimentation is required in order to practice a claimed invention, but that such experimentation must not be "undue." **See, e.g., In re Wands**, 858 F.2d 731, 736-37, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) ("Enablement is not precluded by the necessity for some experimentation . . . . However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue,' not experimentation'.") (footnotes, citations, and internal quotation marks omitted). In **Wands**, the court sets forth a number of factors which a court may consider in determining whether a disclosure would require undue experimentation. These factors were set forth as follows: (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or

unpredictability of the art, and (8) the breadth of the claims.

**Id.** at 737, 8 USPQ2d at 1404. Our reviewing court has also noted that all of the factors need not be reviewed when determining whether a disclosure is enabling. **See, Amgen, Inc. v. Chugai Pharm. Co., Ltd.**, 927 F.2d 1200, 1213, 18 USPQ2d 1016, 1027 (Fed. Cir. 1991) (noting that the **Wands** factors "are illustrative, not mandatory. What is relevant depends on the facts.").

The Examiner has argued that Appellant's specification fails to provide an enabling disclosure because there is no circuitry taught that performs the control of the keyboard in the various settings. See page 3 of the Examiner's answer.

Appellant respectfully submit that one of ordinary skill in the art would clearly know how to modify a conventional electronic keyboard in order to perform the claimed invention. Appellant argues that the Examiner has not come forth with any reason as to why one of ordinary skill in the art could not make and use the claimed invention without undue experimentation. See page 4 of Appellant's brief. Appellant further argues that one of ordinary skill in the art would be able to practice the claimed method steps without undue experimentation given the general knowledge in the prior art and the disclosure of the

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present application. See page 2 of the reply brief.

Upon our review of Appellant's specification, we fail to find that the Examiner has met the burden of showing that the specification fails to teach to those skilled in the art how to make and use the full scope of the invention without undue experimentation. We agree with the Appellant that it would be well within the skill known at the time of filing the application for one of ordinary skill in the art to be able to provide the necessary circuitry to modify a standard keyboard of an electronic piano so that the keys in a particular zone only produce a single tone and preventing one or both keys in the boundary between the adjacent zone from generating a tone.

In view of the foregoing, we have not sustained the

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Examiner's rejection of claims 10 and 11 under 35 U.S.C. § 112,  
first paragraph.

**REVERSED**

JERRY SMITH	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JOSEPH F. RUGGIERO	)	
Administrative Patent Judge	)	



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